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CORRESPONDENCE CONTROL
INCOMING LTR NO

04511 RF 94

DUE
DATE

ACTION

DIST	LTR	ENC
BURLINGAME, A H		
BUSBY, W S		
CARNIVAL, G J		
CORDOVA, R C		
DAVIS, J G		
ERRERA, D W		
FRAY, R E		
HEIS, J A		
LOVER, W S		
OLAN, P M		
ANNI, B J		
EALY, T J		
EDAH, T G		
ILBIG, J G		
UTCHINS, N M		
ACKSON, D T		
ELL, R E		
UESTER, A W		
ARX, G E		
CDONALD, M M		
CKENNA, F G		
ORGAN, R V		
IZZUTO, V M		
OTTER, G L		
ANDLIN, N B		
ATTERWHITE, D G		
CHUBERT, A L		
CHWARTZ, J K		
ETLOCK, G H		
TIGER, S G	X	
OBIN, P M		
QORHEIS, G M		
ILSON, J M		
Chromec, W	X	
Roberts, R S	X	
Hollowell, L	X	

Rec'd w/o enclosure

CORRESPONDENCE CONTROL X X
12/14/94Reviewed for Addressee
Corres Control RFP12-14-94
DATE BY

Ref Ltr #

DOE ORDER # 5400 1

Department of Energy

ROCKY FLATS FIELD OFFICE
P O BOX 928
GOLDEN COLORADO 80402 0928

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DEC 14 10 03 AM '94
ROCKY FLATS EC&G
CORRESPONDENCE CONTROL
DOE-12204

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Gentlemen

The Department of Energy (DOE) formally invoke Part 12 and Part 26 of the Interagency Agreement to dispute the Colorado Department of Public Health and Environment (CDPHE) position on disapproval of the document "Programmatic Preliminary Remediation Goals" (PPRG) This letter defines the nature of the dispute, DOE's position on the dispute, and the information relied upon to support this position

The PPRG document has gone through the comment/response process with both CDPHE and the Environmental Protection Agency (EPA) with submittal of the draft in July 1994, and submittal of the final document, which incorporated CDPHE and EPA comments, on October 17, 1994 Following final review, the EPA approved the document but CDPHE disapproved the document in a letter received November 29, 1994

The nature of this dispute concerns comments # 3, 4 and 5 received from CDPHE on September 9, 1994, which resulted from their review of the draft PPRG document DOE addressed all EPA and CDPHE comments with submittal of the Final PPRG document The November 29th CDPHE letter states the response to these comments is the cause of the disapproval The most significant issue at dispute concerns comment # 3 This CDPHE comment requires inclusion of a residential childhood exposure in each pathway and for all media when calculating Preliminary Remediation Goals (PRGs) This requirement is contrary to existing EPA guidance The remainder of this Statement of Dispute addresses the issues raised in the CDPHE disapproval letter

DOE disputes the CDPHE assertion that " the draft PPRGs were submitted in July 1994 in defiance of our previous agreements " (correspondence to Steve Slaten, November 25, 1994, third paragraph) As stated in our September 22, 1994 response to comment #1, a meeting was held on May 24, 1994, at which the methodology, including equations and exposure factors, to be used for calculation of the PPRGs was presented to EPA and CDPHE The equation for residential exposure to soils included a

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DEC 1 2 1994

time-averaged soil ingestion term for adults and children, as required by EPA Comprehensive Environmental Response and Compensation Liability Act (CERCLA) guidance [Risk Assessment Guidance for Superfund (RAGS), Part B and Region VIII Technical Guidance #RA-01] No other exposure scenarios included child receptors No comments were received on child exposures The only comment received at the time of the meeting was that a dermal assessment needed to be completed if no further action was the resulting option following application of the CDPHE conservative screen The DOE believes that we have followed the consultative process in good faith and did not submit the draft PPRGs in defiance of previous agreements

Additionally, PPRGs followed guidance for developing the Risk Based Concentrations for use in the CDPHE Conservative Screen following resolution of the risk assessment work stoppage This guidance (enclosed) was provided in correspondence dated April 7, 1994, and was further reinforced at the combined EPA and CDPHE presentations held at EPA offices following resolution of the stop work order

DOE response to specific comments in the CDPHE November 29, 1994 correspondence

- 1) CDPHE requirement The PRGs must be calculated considering residential childhood exposure in each pathway and for all media

DOE response The inclusion of residential childhood exposure in each pathway and all media does not follow EPA guidance Current EPA guidance (RAGS, Part B) states that a time weighted average for children and adults should be used for soil ingestion due to differences in rates of ingestion, and the PPRGs utilize this pathway calculation It does not suggest that children be used for any other exposure pathways in the development of PRGs It also specifically states that Reasonable Maximum Exposure (RME) risks should not be developed for multiple pathways because this will lead to excess conservatism All PPRGs use RME assumptions and are, therefore, more conservative than required by EPA The IAG requires use of RAGS guidance

The use of a residential childhood exposure scenario for each pathway and medium in the calculation of PRGs is not appropriate or toxicologically supportable The technique EPA uses to calculate toxicity values, Reference Doses and slope factors, is based on the lowest observed adverse effect level (LOAEL), the no observed adverse effect level (NOAEL), or highly conservative extrapolation models based on data for the most sensitive subpopulation The final toxicity values also include safety or uncertainty factors that account for uncertainty associated with sensitive subpopulations Therefore, it is not appropriate to separate out children as a sensitive subpopulation, except for specific toxins such as lead Benchmark PRGs published by EPA Regions III, IX, and X, do not include children as separate receptors The PPRGs calculated for the Rocky Flats Environmental Technology Site are highly conservative and are properly derived for their use

Further, the following list of 14 sites was reviewed at the Superfund Records Center for Feasibility Studies performed in Colorado to determine how PRGs were calculated

ASARCO Inc -Globe Plant
Broderick Wood
California Gulch
Central City-Clear Creek
Chemical Sales
Denver Radium
Eagle Mine
Lincoln Park
Lowry Landfill
Marshall Landfill
Sand Creek Industrial
Smuggler Mountain
Uravan Uranium
Woodbury Chemical

The conclusion of the review is that remediation goals have been based on EPA guidance (RAGS, Part B) using residential scenarios with time averaged child and adult exposures for soil ingestion. Children are not singled out as separate receptors, except in cases where lead (Pb) exposures were important. Setting additional requirements on the Rocky Flats PPRGs is compared to other potentially responsible parties is not appropriate.

- 2) CDPHE requirement Table 1 in the document, and appropriate text, must be modified to reflect DOE's response to our September 9, 1994 comment #4, regarding use of PRG's in subsurface soil exposure calculations. DOE's response to our comment indicates that DOE is willing to assess residential exposure to subsurface soils. If so, residential exposure to subsurface soil should not be "Not Applicable" on Table 1.

DOE response As originally stated in the response to comment #4, this comment pertains to the use of the PPRGs in the CDPHE conservative screen, not to their development. Table 4 does not need to be modified, as it is consistent with DOE's response to comment #4. For the purpose of the CDPHE conservative screen, DOE has agreed to define surface soil as occurring from 0-12 feet. Thus there is no need to change the table. If surface soil is defined as 0-12 feet, no subsurface soil is considered in the residential scenario. DOE does not propose excavations greater than 12 feet for future residential development.

- 3) CDPHE requirement The document must be revised to include DOE's response to our September 9, 1994 comment #5.

DOE response As originally stated in the response to CDPHE comment #5, the PPRGs are a screening level tool. As their title implies, they are "preliminary" quantitative values. They will evolve during the Remedial Investigation/Feasibility Study process to site specific PRGs. Typically, numerical PRGs are restricted to

DEC 12 1994

chemicals of concern that have had published chemical/media-specific toxicity values. No evidence has been found that indicates Region VIII EPA has required any special treatment of analytes for which no published chemical/media-specific toxicity values were available. Provisional values for some chemicals, such as aluminum, sec and tert-butylbenzene, cobalt, lithium, naphthalene, trichloroethene, tetrachloroethene have been incorporated into the PPRGs. Chemicals without toxicity factors are appropriately examined in the Toxicity Assessment portion of the Baseline Risk Assessment. The document is not inconsistent with this position. The IAG required guidance is silent on this issue, DOE has elected to follow the example of other sites and address these analytes qualitatively.

Following the dispute resolution process as outlined in the IAG, the CDPHE, DOE and EPA Project Coordinators will attempt to informally resolve this dispute within the next 14 days. Your offices will be informally contacted to arrange communication on this dispute issue.

Sincerely,



Steven W Slaten
IAG Project Coordinator
Environmental Restoration

Enclosure

cc w/Enclosure
B Lavelle, EPA

cc w/o Enclosure
J Ahlquist, EM-45, HQ
C Gesalman, EM-453, HQ
D Brockman, AMESH, RFFO
F Lockhart, ER, RFFO
R Schassburger, ER, RFFO
N Castaneda, ER, RFFO
S Grace, ER, RFFO
K Muenchow, ER, RFFO
M Guillaume, SAIC
R Stupka, SAIC
S Stiger, EG&G
W Chromec, EG&G
R Roberts, EG&G